

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent application of:

BRIAN L. AREND et al.

Group Art Unit: 2686

Serial No.: 09/770,551

Examiner: Naghmeh Mehrpour

Filed: January 26, 2001

For: WIRELESS TELECOMMUNICATIONS SIGNAL INHIBITION

Attorney Docket No.: 1801 (USW0596PUS)

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an Appeal Brief from the final rejection of claims 1-11 and 13-21 of the Office Action mailed on June 17, 2004 for the above-identified patent application.

**I. REAL PARTY IN INTEREST**

The real party in interest is Qwest Communication International Inc. ("Assignee"), a corporation organized and existing under the laws of the state of Delaware, and having a place of business at 1801 California Street, 38<sup>th</sup> Floor, Denver, Colorado, 80202, as set forth in the assignment recorded in the U.S. Patent and Trademark Office on January 26, 2001, at Reel 011498/Frame 0030.

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8**

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## **II. RELATED APPEALS AND INTERFERENCES**

There are no appeals or interferences known to the Appellant, the Appellant's legal representative, or the Assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## **III. STATUS OF CLAIMS**

Claims 1-11 and 13-21 are pending in this application. Claims 1-11 and 13-21 have been rejected and are the subject of this appeal.

## **IV. STATUS OF AMENDMENTS**

No amendment after final rejection was filed.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

There are many places and situations in which suppressing wireless telecommunications is desirable. The ringing of a wireless telephone is an unwanted event at public performances such as movies, plays, lectures, concerts, and the like. Portable wireless devices may create a distraction to learning in schools. Operation of a wireless handset may create a hazardous distraction to vehicle operators. Operation of various wireless devices may also interfere with the safe operation of commercial aircraft.

The present invention for inhibiting wireless telecommunications within a limited region of the telecommunications coverage (26) may be described, for example, with regard to Figures 1, 6, and 7. Each radio frequency noise generators (e.g., 32), of a plurality of generators generates a noise signal (120, 122, 124) within a different portion of the

frequency range of the wireless telecommunications. Each of a plurality of antennas (e.g., 34, 106), has an antenna coverage area (e.g., 36) such that the limited region of the telecommunications coverage is formed by overlapping of the antenna coverage areas. Control logic (50) initiates or suspends broadcasting of each noise signal based on at least one control input (52). During operation, noise signals are generated with each signal occupying a different portion of the frequency range of the wireless telecommunication. The noise signals are broadcast from different locations into the region such that telecommunications is inhibited in the overlap of the broadcasted noise signals.

#### **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The Examiner based her rejections on the following references:

1. U.S. Patent No. 6,429,768 to Flick *et al.* (Flick).
2. U.S. Patent No. 6,393,254 to Pousada Carballo *et al.* (Pousada).
3. U.S. Patent No. 4,498,193 to Richardson (Richardson).
4. International Publication WO 98/34412 (GEYRA).
5. U.S. Patent No. 6,222,458 to Harris (Harris).
6. U.S. Patent No. 6,570,689 to Kushita (Kushita).

Claims 1, 7-9, 11, 13, 17-19 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Flick in view of Pousada. Claims 2 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Flick in view of Pousada and in further view of Richardson. Claims 3, 5, 6 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Flick in view of Pousada and in further view of GEYRA. Claims 4 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Flick in view of Pousada and in further view of Harris. Claims 10 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Flick in view of Pousada and in further view of Kushita.

## VII. ARGUMENT

Applicants respectfully disagree with the Examiner's rejections in light of the following arguments.

### A. **Claims 1-11 and 13-21 Are Patentable Under 35 U.S.C. § 102(a) Over Any Combination Of Flick and Pousada**

Claim 1 provides a method for inhibiting wireless telecommunications within a limited region of the telecommunications coverage. A plurality of noise signals are generated, each signal within a different portion of the frequency range of the wireless telecommunication. The plurality of noise signals are broadcast from different locations into the region such that telecommunications is inhibited *in the overlap* of the broadcasted noise signals.

Independent claim 13 provides a system for inhibiting wireless telecommunications within a limited region of the telecommunications coverage. A plurality of radio frequency noise generators each generate a noise signal within a different portion of the frequency range of the wireless telecommunications. Each of a plurality of antennas is in communication with one of the generators. Each antenna has an antenna coverage area such that the limited region of the telecommunications coverage *is formed by overlapping* antenna coverage areas. Control logic initiates or suspends broadcasting of each noise signal based on at least one control input.

The Examiner rejected claims 1 and 13 as an obvious combination of Flick and Pousada. Neither reference teaches or fairly suggests generating a plurality of noise signals having different frequency characteristics and broadcasting these signals from different locations to inhibit telecommunications in a region of overlapping noise signal coverage.

Flick discloses a system for jamming a radio transponder used, for example, to enable ignition when the transponder is within range of an in-car receiver. Flick discloses a single noise generator with a single antenna operating over a single frequency range. ( *See*, transmitters 35 of Fig. 1, 35' of Fig. 2, or 35'' of Fig. 3).

The Examiner asserts that Flick teaches Appellants' generation of a plurality of noise signals, each within a different portion of the telecommunications frequency range, by citing column 4, line 59, through column 5, line 12, as follows (emphasis added):

In particular, the vehicle control system 10 also includes a jammer radio transmitter 35 at the vehicle 11. The jammer radio transmitter 35 selectively prevents the radio transponder reader 22 from receiving the desired radio signal from the radio transponder 15.

In the illustrated embodiment, the jammer radio transponder 35 is connected to and controlled by the illustrated alarm controller 36. In other embodiments, a controller other than an alarm controller may selectively operate the jammer radio transmitter 35 as will become more apparent with reference to the ensuing description. The term "jammer radio transponder" is meant to cover a number of possible operating modes. For example, **the jammer radio transmitter 35 may generate sufficient energy in the receiver passband, such as white noise, that the receiver 24 is unable to detect the relatively weaker signals from the radio transponder 15.** In other modes, the jammer radio transmitter 35 may generate a uniquely coded radio signal that is an incorrect code which thereby blocks successful reception of the uniquely coded desired radio signal from the radio transponder 15.

There is only one generator (transmitter 35). Moreover, when generating a noise signal, this transmitter generates white noise. This is not Appellants' multiple noise signals having different frequency characteristics. Flick neither teaches nor suggests using multiple noise signals or generating noise signals each within a different portion of the frequency range of the wireless telecommunications.

As admitted by the Examiner, "Flick fails to teach a method for broadcasting the plurality of noise signals from different locations." (See, final Office Action, page 2 and page 3.)

The Examiner's second reference, Pousada, also fails to teach or suggest Appellants' invention. Pousada discloses a system for masking mobile telephone operation in a room by sensing the power of carrier signals emitted by telephone base stations and adjusting

the power of interfering signals accordingly. (*See*, the Abstract.) Pousada discloses the use of multiple generators, but only to cover different channels. Pousada is clear that individual communication signals are jammed with a single transmitter.

In basic embodiments, the disabler may be used in areas that receive carriers from only a single base station. In this case, one of those carriers contains signaling channels, and therefore only a single interference generator module EMITTER (10) is necessary.

In places that receive several carriers from different base stations, the system may have a single MODECON (2) module and as many interference generator modules EMITTER (10) as necessary.

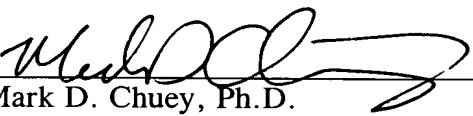
Pousada, column 2, line 66-column 3, line 7.

There is no teaching or suggestion in Pousada for generating a plurality of noise signals having different frequency characteristics and broadcasting these signals from different locations to inhibit telecommunications in a region of *overlapping* noise signal coverage.

Claim 1 is patentable over any combination of Flack and Pousada. Claims 2-11, which depend from claim 1, are therefore also patentable. Independent claim 13 is patentable over any combination of Flack and Pousada. Claims 14-21, which depend from claim 13, are therefore also patentable.

The fee of \$500 as applicable under the provisions of 37 C.F.R. § 41.20(b)(2) is enclosed. Please charge any additional fee or credit any overpayment in connection with this filing to our Deposit Account No. 02-3978.

Respectfully submitted,  
**BRIAN L. AREND et al.**

By:   
Mark D. Chuey, Ph.D.  
Registration No. 42,415  
Attorney/Agent for Applicant

Date: August 22, 2005

**BROOKS KUSHMAN P.C.**  
1000 Town Center, 22nd Floor  
Southfield, MI 48075-1238  
Phone: 248-358-4400  
Fax: 248-358-3351

Enclosure - Appendices



**VIII. CLAIMS APPENDIX**

Claims 1-11 and 13-21, as pending in this application, are reproduced as follows:

1                   1.     A method for inhibiting wireless telecommunications within a  
2     limited region of the telecommunications coverage comprising:  
3                   generating a plurality of noise signals, each signal within a different  
4     portion of the frequency range of the wireless telecommunication; and  
5                   broadcasting the plurality of noise signals from different locations into  
6     the region such that telecommunications is inhibited in the overlap of the broadcasted  
7     noise signals.

1                   2.     A method for inhibiting wireless telecommunications as in  
2     claim 1 wherein generating the plurality of noise signals comprises generating at least  
3     one wide band noise signal and band pass filtering the wide band noise signal.

1                   3.     A method for inhibiting wireless telecommunications as in  
2     claim 1 wherein broadcasting the plurality of noise signals comprises broadcasting  
3     using at least one directional antenna to achieve the limited region.



1                   4.     A method for inhibiting wireless telecommunications as in  
2     claim 1 wherein the wireless telecommunications is through spread spectrum, the  
3     plurality of noise signals generated substantially across the spread spectrum.

1                   5.     A method for inhibiting wireless telecommunications as in  
2     claim 1 further comprising controlling broadcasting the plurality of noise signals  
3     based on a public event.

1                   6.     A method for inhibiting wireless telecommunications as in  
2     claim 5 wherein the broadcast of the plurality of noise signals is automatically based  
3     on at least one condition of the public event.

1                   7.     A method for inhibiting wireless telecommunications as in  
2     claim 1 wherein the region is the inside of a vehicle.

1                   8.     A method for inhibiting wireless telecommunications as in  
2     claim 7 wherein the vehicle is an aircraft.

1                   9.     A method for inhibiting wireless telecommunications as in  
2     claim 7 wherein the vehicle is an automotive vehicle.

1                   10.    A method for inhibiting wireless telecommunications as in  
2    claim 9 further comprising controlling broadcasting the plurality of noise signals  
3    based on detecting the presence of a telephone in a cradle.

1                   11.    A method for inhibiting wireless telecommunications as in  
2    claim 9 further comprising controlling broadcasting the plurality of noise signals  
3    based on detecting at least one condition of the automotive vehicle.

1                   12. (cancelled) .

1                   13.    A system for inhibiting wireless telecommunications within a  
2    limited region of the telecommunications coverage comprising:  
3                   a plurality of radio frequency noise generators, each generator  
4    generating a noise signal within a different portion of the frequency range of the  
5    wireless telecommunications;  
6                   a plurality of antennas, each antenna in communication with one of the  
7    generators, each antenna having an antenna coverage area, the limited region of the  
8    telecommunications coverage formed by overlapping antenna coverage areas; and  
9                   control logic operative to initiate or suspend broadcasting of each noise  
10   signal based on at least one control input.

1                   14.     A system for inhibiting wireless telecommunications as in claim  
2     13 wherein at least one of the plurality of radio frequency noise generators  
3     comprises:  
4                   a wide band noise source generating a wide band noise signal; and  
5                   a band pass filter accepting the wide band noise signal and producing  
6     the noise signal within the frequency range of the wireless telecommunication.

1                   15.     A system for inhibiting wireless telecommunications as in claim  
2     13 wherein the wireless telecommunications is through spread spectrum, the noise  
3     signal generated by the plurality of radio frequency noise generators extends  
4     substantially across the spread spectrum.

1                   16.     A system for inhibiting wireless telecommunications as in claim  
2     13 wherein the region encompasses a public event, the at least one control input based  
3     on a condition occurring at the public event.

1                   17.     A system for inhibiting wireless telecommunications as in claim  
2     13 wherein the region is the inside of a vehicle.

1                   18.     A system for inhibiting wireless telecommunications as in claim  
2     17 wherein the vehicle is an aircraft.

1                    19.    A system for inhibiting wireless telecommunications as in claim  
2    17 wherein the vehicle is an automotive vehicle.

1                    20.    A system for inhibiting wireless telecommunications as in claim  
2    17 wherein the at least one control input is based on detecting the presence of a  
3    telephone in a cradle.

1                    21.    A system for inhibiting wireless telecommunications as in claim  
2    17 wherein the at least one control input is based on detecting at least one condition  
3    of the vehicle.

1                    22. (cancelled) .

**IX. EVIDENCE APPENDIX**

None.

**X. RELATED PROCEEDINGS APPENDIX**

None.